2 climate





INTRODUCTION

Boulder County has long understood the importance of local and regional climate action. Boulder County residents and businesses were among the first in the country to implement programs like EnergySmart, BuildSmart, Colorado Commercial Property Assessed Clean Energy (CoPACE) financing, solar and electric vehicle (EV) bulk purchasing programs, and a host of other energy efficiency and clean energy initiatives.

Despite local success and replication of these programs across the county, the scale of the climate crisis is even greater than we originally understood. Scientists now tell us that we need to reduce greenhouse gas (GHG) emissions by at least 80% by 2050 to stop the trend of warming—and hinder the impacts already underway.

Indeed, there is widespread consensus that human-caused emissions of GHG are impacting Earth's climactic system, causing potentially unprecedented, large-scale, adverse health, social, economic, financial, security, and ecological effects. The risks associated with climate change have driven many counties and cities to plan for a different future. Boulder County has been at the forefront of this effort for the past decade.

WHY CLIMATE CHANGE MATTERS IN BOULDER COUNTY

Recent analyses have expanded our knowledge of the impacts of climate change in Boulder County, increasing our awareness of the challenges that residents will face in the near future. Boulder County and other Colorado communities are already experiencing the impacts of a warming climate in the form of reduced snowpack, earlier snowmelt, increased risk of high intensity wildfires, extreme weather events, an increased number of "high heat" days. Average annual temperatures are already over 1° Celsius (2° Fahrenheit) warmer. If significant emissions reductions are not achieved, more than 20 days a year in Boulder County could be hotter than 95° in the next 15 years. By 2050, these temperatures could exist for nearly half of the summer.

As temperatures continue to increase, so will unpredictable precipitation and extreme weather events.² In fact, Boulder scientists recently uncovered that the severe effects of the 2013 flood were enhanced by human-caused climate change.³ Climate change will clearly alter our natural landscape, and many species currently native to the area will no longer find suitable conditions.





In addition to the human health and wildlife impacts, there are also significant economic costs associated with future climate conditions. The estimated total cost of mitigating only some of the potential effects of climate change across the geographic area of Boulder County through 2050 is conservatively placed at \$96 million to \$157 million for the median- and high-impact scenarios. Undoubtedly, the human health and economic costs of climate change pose great challenges to our community and beyond.

Successfully addressing these challenges will require bold, broad measures. This is a critical time for our environment and our community—and we are well positioned to be a leader in facing these challenges.



Climate Change in Boulder County

Boulder County and other Colorado communities are already experiencing the impacts of a warming climate in the form of reduced snowpack, earlier snowmelt, increased risk of high intensity wildfires, extreme weather events, and an increased number of "high heat" days.

The direct effects of global warming on our quality of life in Colorado are a real cause for concern. According to the University of Colorado Boulder Research Center, local effects of global warming may include

- Hotter summers—By 2050, more than half of the summer may be at 95° or hotter.
- Warmer winters—with a thinner snowpack and earlier spring runoff
- More precipitation—falling as rain rather than snow
- More wildfires—burning twice as many acres each year compared to pre-1980 averages

- Water shortages—Colorado's precipitation has decreased 20% in the last century, and water supplies are already stretched thin. The mountain snowpack serves as a natural reservoir. Less snow and earlier melting could leave Boulder County with less water during hotter summers, increasing the risk of forest fires or enabling outbreaks of forest insects. In the coming decades, the changing climate is likely to decrease water availability and agricultural yields in Colorado, further increasing the risk of wildfires and economic impacts on our farming community and growing population.*
- Increased frequency and intensity of flooding events—Boulder County and county residents are still recovering from the 2013 flood. Culverts, roadways, and bridges are still being repaired at great cost.
- Longer periods of drought

- Widespread beetle infestations wiping out pine forests and causing die-off in aspen stands
- **Health problems**—An increase in summer temperatures increases the formation of ozone. Ozone can affect human health by reducing lung function, aggravating asthma, and causing permanent lung damage in children and adults.
- Economic impacts—Measures to adapt to and mitigate the impacts of climate change are expensive.
 A recent analysis projects that over the next three decades, the costs to local Boulder County taxpayers will top \$100 million.
- Impacts on vulnerable populations—In addition to health impacts, it's harder on less affluent people to recover financially from the loss of a primary residence, and renters have a hard time finding affordable housing following destructive wildfires or floods.



Climate Damage

Boulder County residents have already experienced the pernicious impacts of climate change. The 2010 Fourmile Canyon fire burned 6,200 acres and was the most destructive wildfire in the county's history, destroying hundreds of homes. The September 2013 flood swept away roads, bridges, and homes across Boulder County and caused more than \$2 billion in regional damage. The summer of 2016 was the hottest on record. And the mountain pine beetle, unleashed by milder winters, has decimated more than four million acres of forest across the state. These impacts illustrate what Boulder County has at stake as humans change the climate—and why it's critical to reduce carbon emissions as rapidly as possible.

How Climate Change Affects Our Health

- Poor air quality can intensify cardiovascular, respiratory, and allergy-related illness.
- More frequent wildfires induce asthma symptoms due to high smoke levels and other air quality issues.
- Higher temperatures can do a lot of harm, including increase the length and severity of allergy seasons, lead to dehydration, cause heat stroke; and aggravate cardiovascular and respiratory Illness. This is especially true among children and the elderly.
- Higher temperatures could also lead to more vector-borne and waterborne diseases.



BY THE NUMBERS

Greenhouse Gas Emission Trends

Boulder County has calculated and reported community-wide GHG emissions since 2005 and focused its GHG reduction efforts on the largest emissions sources: electricity, natural gas, ground travel, and solid waste (see opposite page). According to the latest inventory, emissions from commercial and residential building energy use account for 60% of emissions and transportation accounts for 31% of emissions countywide. Emissions from industrial processes, oil wells, solid waste, and agriculture account for the remaining 9% of emissions. Between 2005 and 2016, countywide GHG emissions decreased by 3%. It is significant that emissions have remained relatively steady over a period of sizeable growth in population (13%) and economic prosperity (45% increase in sales and use tax).

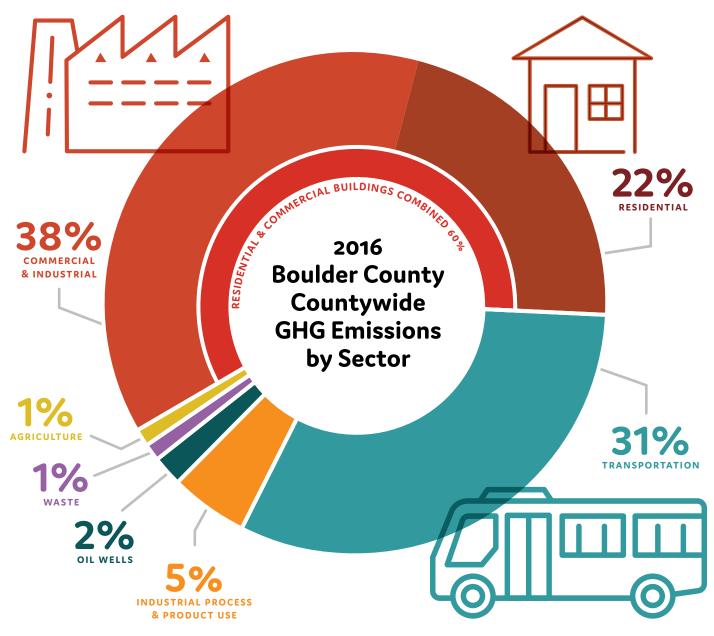
In 2012, Boulder County laid out a bold goal of reducing community GHG emissions 40% below 2005 levels by 2020. Our recent 2016 inventory suggests that reaching this goal remains a significant challenge and will require all of us to take action. While no single step can reverse climate change effects, Boulder County, municipalities, and all community members can pursue more reduction strategies, take advantage of leading edge technologies, and engage more citizens across our community in this effort to reduce carbon pollution. Boulder County residents emit an average of 15 metric tones of carbon dioxide equivalent (mtCO₂e) annually in Boulder County (see page 40). We have the challenge of getting our emissions per person per year to a countywide average of 7 mtCO₂e (to meet our 2030 goal).

reducing waste

play a large role in helping Boulder County work toward our climate goals. Boulder County completed a 2016 GHG inventory using a standardized methodology. A global emissions perspective is missing from the inventory methodology, which can only account for landfills, while most of the products we purchase also have emissions associated with their collection and manufacture outside of our county. Zero waste efforts contribute to significant emissions reductions by avoiding "upstream" GHG emitted in the extraction, manufacturing, and transportation of raw materials, food, and goods.

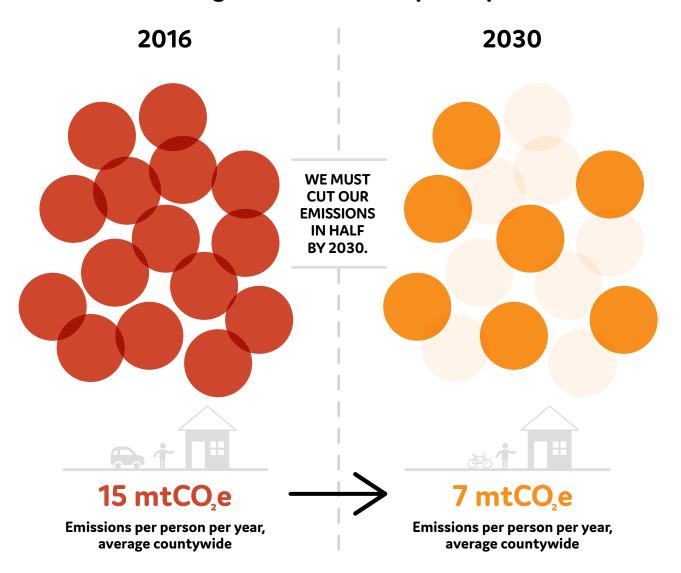








Average GHG Emissions per Capita



BY THE NUMBERS

Adopting Longer-Term GHG Emissions Reduction Goals

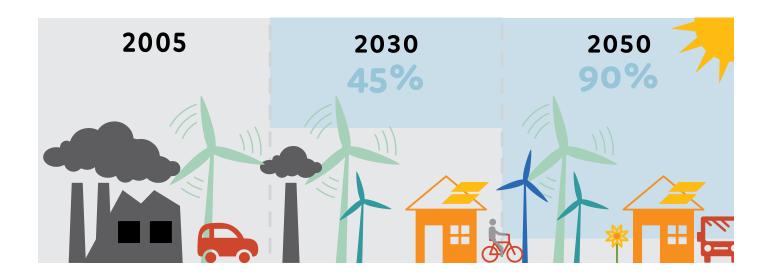
Boulder County's 2016 GHG inventory gave us the opportunity to rethink our long-term approach to the climate crisis. In early 2018, an analysis completed by local consultants and reviewed by renowned climate stakeholders helped us identify specific strategies to reduce community-wide GHG emissions. In addition, the Board of County Commissioners (BOCC) supports

setting GHG emission reduction goals that keep global warming to 1.5–2.0° C. The new, longer-term, countywide goals are as follows:

- Reduce countywide GHG emissions by 45% below 2005 levels by 2030.
- Reduce countywide GHG emissions by 90% below 2005 levels by 2050.

These goals (see below) underscore that Boulder County is committed to transitioning to a low-carbon future and a clean energy economy.

These goals are based on recommendations from Western Resource Advocates' Climate Blueprint Report. See Resources (page 57) to learn more.⁵



climate goal

Achieve rapid and deep emission reductions and become more resilient to the impacts of climate change.





COUNTY OPERATION STRATEGIES

Ensuring climate change mitigation and climate change adaptation are top priorities within Boulder County's own operations

- → Support land-use policies and the development of codes that reduce barriers to solar without compromising the county's open space policies, and support using appropriate, county-owned land for renewable energy.
- → Be active members in statewide organizations that are working on our behalf to combat climate change, such as Colorado Communities for Climate Action (CC4CA) and Compact of Colorado Communities.
- → Promote low-carbon transportation options, multimodal work commuting, and EV adoption within our countywide vehicle fleet and among county employees.

- → Prioritize climate mitigation and adaptation in countywide programs and ensure that all departments understand their role in carrying out the climate vision of the commissioners.
- → Adopt internal resolutions and policies that establish climate action as a top priority for the organization and guiding principle for decision making.
- Prioritize budget decisions around climate mitigation and climate resiliency initiatives.

- → Create a climate change strategic task force that helps implement Boulder County's climate mitigation and climate adaptation strategies.
- → Assign a point person to coordinate climate adaptation and climate resiliency efforts, track progress, and leverage countywide resources.
- → Reduce Boulder County's internal energy consumption and encourage energy conservation behavior at work.
- → Meet all of Boulder County's internal electricity needs with 100% renewable energy by 2025.

EVERY CHAPTER OF THIS SUSTAINABILITY PLAN HAS KEY STRATEGIES TO REDUCING CARBON EMISSIONS. PLEASE SEE OTHER CHAPTERS OF THIS PLAN FOR A MORE THOROUGH REVIEW OF CLIMATE-RELATED STRATEGIES RELATIVE TO SPECIFIC TOPICS LIKE AIR QUALITY (PAGE 16), ENERGY & BUILDINGS (PAGE 76), TRANSPORTATION (PAGE 122), AND ZERO WASTE (PAGE 162).



COMMUNITY STRATEGIES

Reduce county GHG emissions by 45% below 2005 levels by 2030

CROSS CUTTING STRATEGIES

- → Support and play a lead role in advocating for state and national climate protective policies, and continue a leadership role in CC4CA, a coalition of local governments that advocates for state and federal policies to protect Colorado's climate for current and future generations.
- → Work with Boulder County producers, tenants, and ranchers to increase the carbon sequestration potential of using carbon farming methods, including, but not limited to, adding compost to soils, reducing tillage, planting trees, using slow-release fertilizer, and using cover crops.
- → Support efforts to establish a carbon tax on electricity, natural gas, and transportation fuels.
- → Impose a fee on energy intensive industries, including, but not limited to, marijuana and oil and gas.

BUILDINGS & ENERGY

- → Explore a mandatory benchmarking requirement for commercial and industrial buildings owners in unincorporated Boulder County, whose buildings exceed 20,000 square feet, to rate their buildings' energy use, report energy metrics to the county, and implement energy efficiency measures. Encourage municipalities throughout Boulder County to also adopt mandatory commercial building benchmarking.
- → Continue to offer EnergySmart and Partners for a Clean Environment (PACE) services to Boulder County residents and businesses, and explore new opportunities to address GHG emission reductions through these programs.
- → Strengthen Boulder County's residential building code,
 BuildSmart, to move toward net-zero energy use in new residential construction by 2022, and enhance and improve commercial codes to achieve net-zero energy by 2028.

- → Support low-interest financing mechanisms through Elevations Credit Union's Energy Loan, the Clean Energy Credit Union, CoPACE, and other financing instruments to enable residents and businesses to complete energy efficiency upgrades and install renewable energy.
- → Support fuel switching that helps residents adopt renewable heating and cooling technologies, such as replacements to natural gas appliances and inefficient electric appliances, to reduce their reliance on fossil fuels.
- → Encourage municipalities throughout Boulder County to adopt the most recent residential and commercial energy efficiency building codes and consider going beyond code.
- → Support the continuation of Xcel Energy's State Energy Efficiency Resource Standard.

RENEWABLE ENERGY

- → Support increased access to rooftop and community solar throughout Boulder County by continuing to offer Boulder County's suite of renewable energy services, such as EnergySmart, PACE, solar bulk purchase programs, and rebates and incentives.
- → Support significantly increasing the state's renewable energy standard.

TRANSPORTATION

- → Increase the number of EVs on the road owned by Boulder County residents through programs and policies such as bulk purchase programs, tax incentives, sales requirements, and improved charging infrastructure.
- → Continue to offer transportation advising to the business community to increase modal choice and decrease single-occupancy vehicle use through the PACE service.
- Update transportation policies, plans, and standards to incorporate new travel systems and technologies into the design of transportation infrastructure, to ensure low-carbon travel.

- → Continue to develop Boulder County's multimodal transportation infrastructure, increasing transit service frequency and geographic range, enhancing vehicle-sharing opportunities, and expanding travel demand management programs.
- → Support the continuation of existing federal Corporate Average Fuel Economy (CAFE) standards and work with the Colorado Department of Public Health and Environment's Air Quality Control Commission to adopt more stringent fuel efficiency standards for vehicles.

OIL & GAS

- → Participate at state agency proceedings to advocate for regulations that reduce emissions from oil and gas facilities.
- → Collaborate with state lawmakers and other local governments to enact legislation that reduces climate impacts of oil and gas development.
- → Promote programs to facilitate movement away from fossil fuels for residents and businesses.

- → Encourage the adoption of federal regulations and policies that reduce the impacts of oil and gas resource extraction.
- → Continue to strengthen and enforce county oil and gas regulations.
- → Engage in legal strategies and litigation to limit climate impacts and mitigate climate harms.

WASTE

→ Encourage resource conservation by local government, residents, and businesses to reduce the carbon footprint associated with the life cycle of resources and goods, including extraction or harvest, production, transport, provision of services, reuse of materials, recycling, compost, and disposal.



COMMUNITY STRATEGIES

Support climate change preparedness and climate adaptation and resiliency

- → Assign a point person to coordinate climate adaptation activities and determine how to measure progress on various elements of the county's climate adaptation efforts.
- → Establish a climate adaptation planning committee, which would serve as a multiagency working group to coordinate resource management strategies across jurisdictional boundaries and provide a forum for community dialogue on climate.
- → Through land-use policies, continue to encourage a compact development pattern in Boulder County that locates new development close to existing development and protects rural preservation and open space lands from fragmentation and other associated impacts.

- → Evaluate the impacts of events caused by climate change on transportation infrastructure. Plan adaptations of transportation infrastructure to help prepare for, respond to, and recover from such events.
- → Expand involvement in regional climate resiliency planning to more communities, and work with the Compact of Colorado Communities to engage in regional resiliency activities.
- → Serve as a convener of strategic and collaborative discussions about climate change mitigation and adaption across the municipalities within the county, with a particular emphasis on public health, water supply, and hazard management.

- → "Encourage the Office of Emergency Management to incorporate climate change preparedness strategies into Boulder County and City of Boulder multihazards plan.
- → Incorporate climate change preparedness strategies into the Boulder County comprehensive recovery plan and the comprehensive planning process.⁶
- Support future climate change preparedness policies and collaborative efforts at the local, regional, and state levels.

SEE THE AIR QUALITY (PAGE 16), ENERGY & BUILDINGS (PAGE 76),
TRANSPORTATION (PAGE 122), AND ZERO WASTE (PAGE 162) CHAPTERS
FOR ADDITIONAL EMISSIONS-REDUCTION STRATEGIES.



glossary

CLIMATE CHANGE MITIGATION

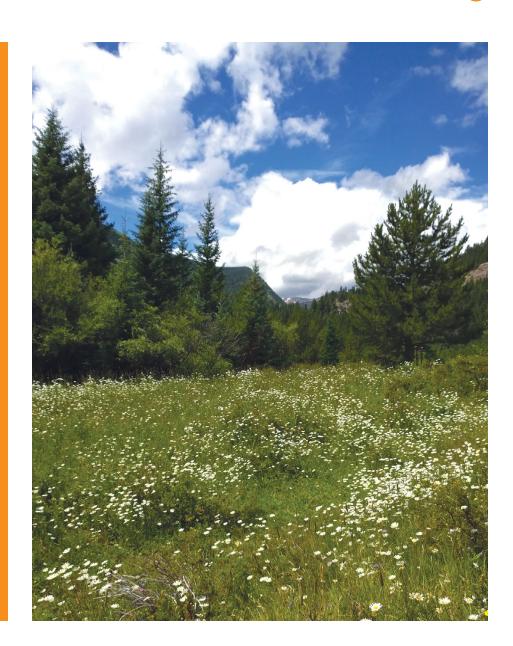
Actions to reduce emission of greenhouse gases.⁷

CLIMATE CHANGE ADAPTATION

Adjustment, in natural or human systems, in response to actual or expected climatic stimuli or their effects, that moderates harm or exploits beneficial opportunities.

URBAN CLIMATE CHANGE RESILIENCE

Capacity of cities to function so that the people living and working in cities—particularly the poor and vulnerable—survive and thrive in the face of shocks and stresses related to climate change.







FAITH COMMUNITIES LEADERSHIP

Faith communities are rapidly emerging as leaders in community-based climate action. As solar panel prices decrease and financial incentives are designed to reach nonprofits, solar energy has become a possibility for churches, synagogues, mosques, temples, and other spiritual communities that take environmental stewardship to heart.

With help from Boulder County's PACE service, both St. John's Episcopal Church and Congregation Har HaShem lowered their energy usage through LED lighting upgrades and then followed up with rooftop solar energy. Both congregations collected member donations, won grants, and received rebates from Boulder County and the City of Boulder. Both found financial instruments to capture the tax credits typically unavailable to nonprofit faith organizations. When the solar photovoltaic (PV) systems went online, each congregation held a dedication ceremony, and both now use these visible actions as a basis for educating adults and children on sustainable energy and environmental stewardship, including actions they can take at home.



CONGREGATION HAR HASHEM 50 kW SOLAR ARRAY 3950 BASELINE RD., BOULDER

Combined with LED lighting upgrades, the solar PV system covers at least 75% of Har HaShem's electricity needs. A power purchase agreement, administered by the nonprofit Atmosphere Conservancy, defrayed the up-front costs of the system and helped the congregation take advantage of tax credits.

ST. JOHN'S EPISCOPAL CHURCH 25 kW SOLAR ARRAY 1419 PINE ST., BOULDER

St. John's is a historic property, so there were some challenges to siting the solar system. It couldn't go on the sanctuary, but with a little ingenuity, two different sets of top-efficiency solar panels were accommodated on accessory buildings to the east. The panels provide about 40% of the electricity that the church needs each year.



66

Folks at the church wanted to do something to show visibly how the church was involved with saving the environment. We felt there was a spiritual need for that, and it helps the community as well. We're looking forward to showing the vestry what a great investment we've made.

—Mark Monroe, member of the solar committee



POLICY PRIORITIES

The following are environmental sustainability policy priorities adopted through Boulder County's legislative agenda:

POLICY

WHAT YOU NEED TO KNOW

Support legislative, regulatory, and administrative actions to achieve the state's emission reduction goals and implement the Colorado Climate Plan, a statewide strategy of policy recommendations and actions to mitigate greenhouse gas emissions and to increase Colorado's level of preparedness

Recognizing that local governments are the first responders in the fight against climate change, Boulder County has taken numerous steps to reduce its own heat-trapping emissions and to assist its residents and businesses to do the same. Through CC4CA, Boulder County has also joined with numerous other Colorado local governments to advocate for expanded efforts, at all levels of government, to mitigate climate change.8

State-level actions, such as the establishment of new goals for reductions in statewide heat-trapping emissions, completion of a new state emissions forecast, and the implementation of the Colorado Climate Plan, will contribute to development of a national climate change solution, while also supporting the efforts of Colorado's local governments.

Support climate change preparedness and resiliency efforts

Climate change will affect Colorado through increased heat, more extreme weather events, reduced winter snowpack, and changed precipitation patterns. Boulder County supports the development and implementation of plans that can help the state and its communities prepare for and become more resilient in response to impacts of climate change.





POLICY

WHAT YOU NEED TO KNOW

Support statutory codification of aggressive and enforceable goals to reduce net statewide heat-trapping emissions

Boulder County supports continued pursuit of an aggressive energy efficiency and renewable energy agenda for Colorado. Strategies that should be considered include increasing the Renewable Energy Standard, extending and expanding the Colorado Energy Efficiency

Resource Standard beyond 2018, providing authority for Colorado local governments to implement community choice aggregation, supporting further construction of alternative-fuel vehicle fueling infrastructure, and increasing state support of and engagement with weatherization efforts.

Support a comprehensive, market-based policy to reduce Colorado's heat-trapping emissions

Climate change is considered a market failure by economists because it imposes huge costs on society—so-called "external costs"—that are not normally reflected in the prices of the goods and services causing the cost. To overcome this market failure, Boulder County supports efforts to internalize costs, which puts a price on heat trapping emissions and allows that

price to help drive emission reductions. Such a market-based approach could be undertaken at national, regional, or state levels—for example, a tax on heat-trapping emissions, or a cap-and-trade program that allows trading of limited emission rights, which are sold and traded to achieve economically efficient emission reductions.

POLICY

WHAT YOU NEED TO KNOW

Support concrete state government actions to reduce emissions from electricity generation and consumption in Colorado

Colorado state government has consistently stated that it will develop a rule to comply with the federal Environmental Protection Agency's Clean Power Plan (CPP), and it has reiterated its intent to proceed, even in light of the current judicial stay and existing uncertainty regarding executive branch support for the rule. Boulder

County urges the governor and other state officials to proceed in developing state actions to reduce heat-trapping emissions in Colorado to levels at least equivalent to those required by the CPP, and to move forward, regardless of federal judicial or executive branch action or inaction on the CPP.

Provide Colorado counties with permissive authority to implement a carbon tax

A carbon tax is a fee assessed on the carbon content of a fossil fuel. A properly designed carbon tax will incentivize decision makers at all levels to reduce carbon emissions through conservation, substitution, and innovation strategies, e.g., through energy efficiency, renewable energy, and conservation-based behavioral change.



Colorado Communities for Climate Action

Many Colorado communities, like Boulder County, have aggressive climate protection and GHG emission reduction goals. State and federal climate policy changes are needed to achieve these reduction goals. In May 2016, Boulder County and the City of Boulder initiated the establishment of CC4CA, which is a coalition of local governments that advocates for state and federal policies to protect the climate for current and future generations.

- By unanimous agreement among the coalition's members, CC4CA has developed and is pursuing an aggressive climate action policy and legislative agenda.
- CC4CA is building constructive relationships with officials of the governor's administration, leaders and members of the General Assembly, state agency officials and staff members, other local government networks, advocacy organizations, and business interests.

- CC4CA is advocating for more climate protection actions by the governor and state agencies.
- CC4CA has pushed back against efforts by the federal administration and in Congress to roll back federal climate protection and other critical emissions reduction programs.
- The coalition contracts with a professional lobbying firm to advance its state legislative priorities through such strategies as direct contact with legislators and collaboration with key partner organizations.
- CC4CA has held training sessions for elected officials, managers, and program staff of member jurisdictions, empowering them with information and suggestions on how to be more effective in advocating for climate action at the state and federal levels.





TAKE ACTION

GHG Reduction

To reach these goals, we need collective community action to drastically reduce communitywide GHG emissions. Carbon footprint measures the amount of CO₂e produced annually from our daily activities (from burning fuels). Each Boulder County resident on average has a carbon footprint of 15 metric tons of CO₂e emissions per year. For comparison, to reach our 2030 goal, each community member needs to cut their emissions in half. Luckily there are many options to minimize our negative impacts on the environment. To get started making a difference, tackle the list below or decide which options can easily be adjusted to fit into your lifestyle.

Reduce your carbonbased travel.

□ When leaving your home, consider walking, biking, or using public transportation. Combining trips and carpooling can also save time. If you have to purchase a vehicle, consider an electric vehicle.

Eat a more plant-based diet.

☐ The meat industry is one of the largest contributors to climate change worldwide, as livestock animals produce large amounts of methane. Methane is a GHG that packs 84 times the punch of CO₂ over a 20-year period. Eating a more plant-based diet can be one way to ensure your lifestyle is low carbon.

Minimize your waste.

☐ Only buy what you need and reuse, recycle, compost, and minimize food waste.

Make your home fossil free and solar powered.

☐ There are now more ways to purchase renewable energy and it is more affordable. Rooftop solar is a great way to power your home with clean energy. If you don't have a roof that is suitable for solar or you rent your home, look into purchasing subscriptions to solar gardens or contact your local utility for renewable power options. Available financing for rooftop solar can be found at the Clean Energy Credit Union,9 as well as through local solar companies. Make sure your house is well insulated, and buy energy and water efficient appliances. An EnergySmart¹⁰ advisor can help you figure out ways to reduce your carbon footprint.



RESOURCES

More Information

1 Average Annual Global Temperature

> noaa.gov/news/julywas-hottest-monthon-record-for-globe

2 Extreme Weather Events

rockymountainclimate .org/extremes/ boulder.htm

3 Colorado 2013 Flood

sciencedirect.com/ science/article/pii/ S2212094716300470 4 Economic Costs of Climate Change

assets.bouldercounty
.org/wp-content/
uploads/2018/04/
resilient-analyticsreport-impacts-ofclimate-change-bouldercounty-colorado.pdf

Boulder County 2016 Greenhouse Gas Inventory

bouldercounty.org/ environment/ sustainability/ climate-change-2

5 Climate Blueprint Report

westernresource advocates.org/ publications/coloradosclimate-blueprint What Climate Change Means for Colorado

bit.ly/2kg0qmo

6 Climate Change Preparedness Plan

> bouldercounty.org/ environment/ sustainability/ climate-change-2/ preparedness-plan

7 IPCC Mitigation

ipcc.ch/ipccreports/tar/ wg3/index.php?idp=433

8 Colorado Communities for Climate Action

cc4ca.org

9 Clean Energy Credit Union

cleanenergycu.org

10 Find an EnergySmart Advisor

EnergySmartYes.com

11 Carbon Footprint
Calculator

Nature.org/GreenLiving/ CarbonCalculator/ index.htm



Use the Carbon Footprint Calculator¹¹ to help you determine how you can reduce your impact.